



## **Memorandum**

*To: Stormwater Management Task Force*

*From: CDM*

*Date: September 25, 2007*

*Subject: Wake County Stormwater Task Force Meeting #16 Summary –  
Voting and Comments on Final Recommendations*

On September 20, 2007, CDM and Wake County staff facilitated the sixteenth meeting for the Wake County Stormwater Management Task Force. Attendees were provided with meeting materials, including a copy of the agenda, a one-page description of each recommendation, a voting sheet and a PowerPoint presentation. All meeting materials can be found on the Task Force website at <http://www.wakegov.com/environment/stormwater/>.

The meeting began with a welcome by Commissioner Kenn Gardner, Chairman of the Wake County Stormwater Task Force. Mr. Gardner made some brief comments before introducing the CDM project team.

### **Update on Stormwater Manager's Meeting**

Since the last meeting, Wake County and CDM staff convened a meeting with the local stormwater managers to review the draft recommendations. The managers provided suggestions for potential changes to the recommendations, suggested implementation steps and participated in a voting exercise to indicate which recommendations they considered as priorities for the County. The attached Table 1 shows a comparison of the Task Force priorities and the Stormwater Manager's Priorities.

### **Comments/Voting on Recommendations**

Tommy Esqueda of Wake County facilitated the discussion of the Task Force recommendations. Each recommendation was reduced to a one-page description and a table of implementation steps. In addition, costs/resource estimates were included where appropriate. Mr. Esqueda described each of the recommendations and solicited comments from the group. In addition, the Task Force completed a form to indicate their level of agreement with each of the recommendations and provided final comments to be included in the report. Table 2 and Figure 1 show the results of the voting exercise in table and graphical

**Table 1**  
**Wake County, North Carolina**  
**Stormwater Management Task Force**  
**Priority Voting Exercise Results for Task Force and Managers**

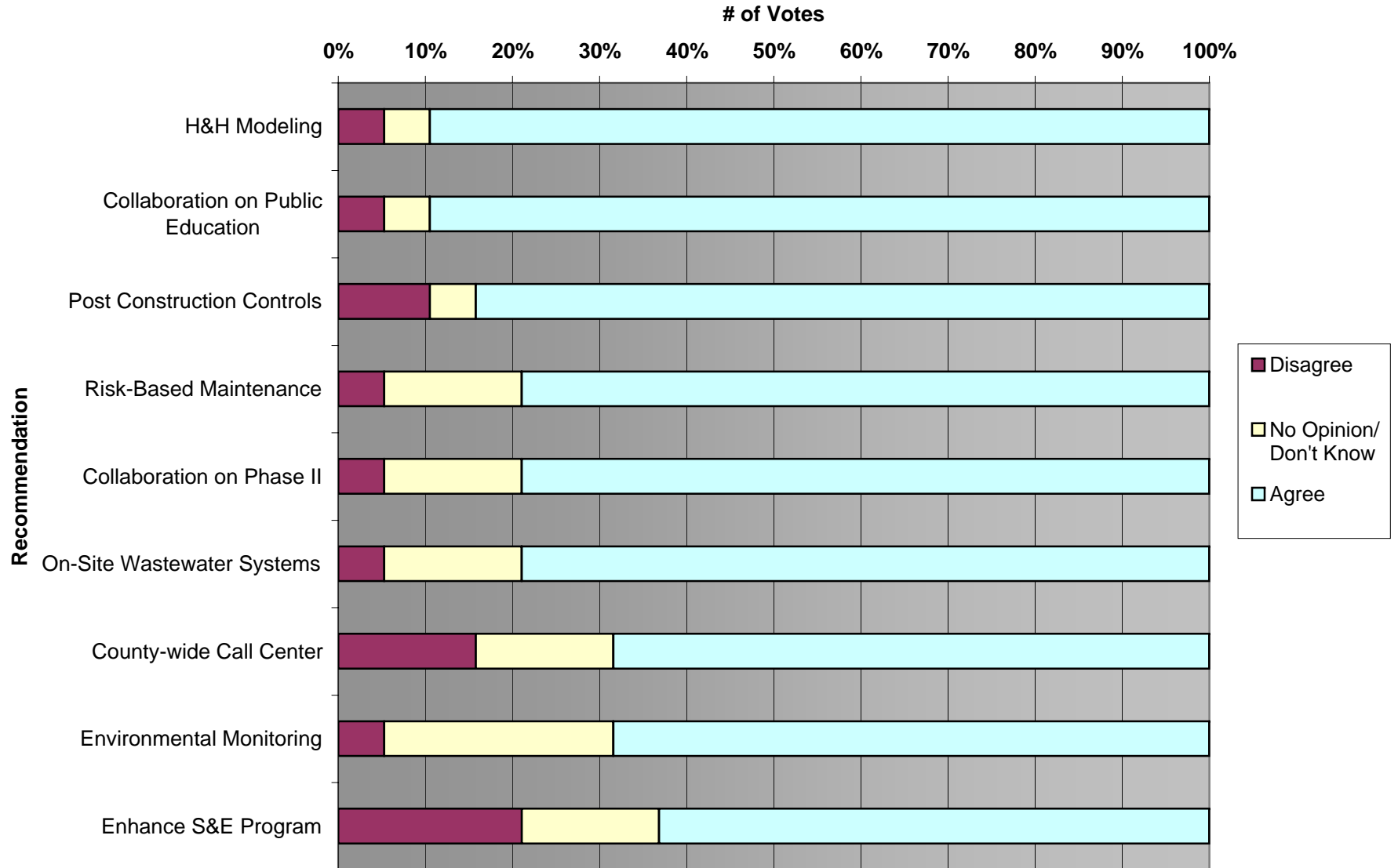
Proposed Rec. #	Proposed DRAFT Recommendations	Task Force Priorities	Manager's Priorities
		Rank	Rank
1	Hydrologic and Hydraulic Modeling of the Stormwater System	3	2
2	Post Construction Stormwater Runoff Controls	2	1
3	Enhance Sediment and Erosion Control Programs County-wide	1	1
4	Implement County-Wide Call Center for Stormwater Issues	3	6
5	Risk-based Approach to Stormwater System Maintenance	1	3
6	Collaboration with County on NDPES Phase II Minimum Measures	1	6
7	Environmental Monitoring (Quantity and Quality)	4	6
8	Collaboration on Public Education Programs	2	4
9	Maintenance and Inspection of On-Site Wastewater Systems	5	5

**Wake County, North Carolina  
Stormwater Management Task Force  
Meeting #16 Voting Results on Final Recommendations**

No.	Recommendation	Strongly Disagree	Disagree	No Opinion/ Don't Know	Agree	Strongly Agree	Total Votes	Percent of Agreement**
1	H&H Modeling	0	1	1	9	8	19	89%
2	Post Construction Controls	1	1	1	4	12	19	84%
3	Enhance S&E Program	0	4	3	6	6	19	63%
4	County-wide Call Center	2	1	3	7	6	19	68%
5	Risk-Based Maintenance	0	1	3	9	6	19	79%
6	Collaboration on Phase II	1	0	3	5	10	19	79%
7	Environmental Monitoring	0	1	5	9	4	19	68%
8	Collaboration on Public Education	0	1	1	8	9	19	89%
9	On-Site Wastewater Systems	0	1	3	9	6	19	79%

*Note: Percent of agreement is based on total votes of "agree" and "strongly agree"*

# Level of Agreement with Recommendations



format. The following sections summarize the Task Force comments on each recommendation.

### **Hydrologic and Hydraulic Modeling of the Stormwater System**

- The small towns will need help with assessments. Also, what happens when a model covers an area which affects two or more towns and a town does not want to take part? Some overall authority might need to oversee this.
- The use of the \$275K should be clarified as money towards start up costs and not the total cost of the entire modeling recommendation.
- Very costly, potential for many different answers based on so many variables. Costly to maintain and costly to train all staff at all local governments.
- Will be used against future developments and extract more money from developers for problems of the past.
- Where does all the money come from to do this on a wide-scale program?
- Determine when and how it will be updated. What type of uses it will have based on how often it is updated. Must have rules for upkeep of the model. Municipalities outside of the drainage basin should not have to pay for that particular model.
- Call it modeling for floodplain management as well. Do stormwater for 2-year model and floodplain model for 100-year storm.
- The model will need to be updated periodically. To what level will the updates be, and what will the update schedule be?
- Be sure to collaborate with NC Floodplain Mapping program. Use model to predict effectiveness of structural BMPs. Make future build-out and other information on GIS layer. Need public hearings.
- I would participate if appropriate.
- H&H models are essential if the County plans to make stormwater management decisions based on science.
- Seems important enough but I wouldn't put it as a #1 priority.
- Will future conditions information from this supersede that of the State's? State methodology and results are questionable.

- What about potential ramifications of climate change on design storms/flood events? Some sort of sensitivity analysis with more extreme scenarios may be called for. Also, would be more interesting to know what impacts are expected not only for perennials and intermittents, but ephemerals as well.

### **Post-Construction Stormwater Runoff Controls**

- The “common ordinance for all jurisdictions” is the strength of this recommendation. We should all be held to the same standard.
- We would like to keep this in house within our local government. We have been implementing this for 20+ years.
- Towns need to look at restrictions they put on development in the way they require impervious surfaces with road widths, curb & gutters, sidewalks and then expect no stormwater runoff.
- How much more will it take to go from 1-yr storm to 10-yr storm? How much more benefit will be obtained?
- Have flexible ordinance that allows equivalent mitigation to offset on-site increases. Reduce requirements for paving, curb & gutter.
- Leave language regarding small storms in the recommendations. This should be about more than flood control.
- Work with Raleigh on LID.
- Mirror Kenn Gardner’s comments about needing a good (defensible) cost-benefit to justify increasing the storm event. Balance against development standards.
- Each jurisdiction should have their own regulations since permit requirements are different for each. However, Wake Co. schools should provide better volume control, at least 25-year.
- Move forward with this one. 1-year stormwater control. 10-year conveyance systems. 100-year bypass or analysis on system to check for damage.
- Consistency among municipalities is important. H&H modeling should be used to see if the 10-year storm is the ideal storm for control vs other storms vs regional controls. Schools need to practice LID, adopt some controls for ease of approval. Allow off-site controls, similar to EEP.
- Need to control post construction volume.

- The additional requirement for control of 10-year storms will be very expensive and of questionable return on investment. Also the question of who maintains these structures has not been answered. I would be against the 10-year storm requirement without the ability to construct ponds off-site. They could be designed to handle much of the problem and also provide recreation, irrigation and groundwater recharge.
- I think this is one of the most important steps to help improve the water quality and overall health of stormwater systems.
- Should provide incentives for water harvesting for re-use on-site.
- Educating local staff and officials will be important, as will having tools and incentives available. Development interests need to be involved too – this will involve much more facilitation and education than this list suggests, or you will end up with a product that caters to the lowest common denominator.
- Can guidance be formulated for local governments on their growth management policies? Modeling multiple scenarios a possibility?

### **Enhance Sediment and Erosion Control Programs**

- Cost does not seem to bring a large benefit. Should be kept at Town level.
- It does not seem good to devise some system that allows contractors to do inspections with County or Town inspecting randomly.
- Agree that there needs to be more enforcement and inspections, but this policy needs to be discussed with planning departments of municipal governments. Can you ensure 7 additional staff can handle the workload you are proposing to do? How is more staff (7) going to help when existing staff have a difficult time getting through current workload?
- I believe current programs need to be enforced first before trying to make restrictions even greater.
- Don't really have a problem with silt fence on all construction sites as long as a "certification" to install is not required. This makes requirement of silt fence more equitable across construction sites.
- Focus on high-risk sites and less on low risk ones. Emphasize cross-training of inspectors. Clarify that residential lots do not need silt fence on all sides, just on low side. Also, should not require silt fence between lots owned by same person.

- Keep the risk-based analysis/design. But, there are too many unknown issues beyond design.
- Introduce incentives for contractors which go above minimum standards.
- The Town of Morrisville has adopted the County's erosion and sediment control ordinance.
- Mirror Jerri's comments about evaluation of risk vs. prescriptive regulatory approach. Include mandatory certification of inspectors.
- Also require knowledgeable staff for plan review.
- Limit mass grading. How about inspections 2x per month. Why can we not rely on the contractor or engineer to certify the S&E measures? Non-compliance means they pay. S&E control specialists should be required for 10-acres and greater, for example. The County should charge for inspections on larger developments.
- Prioritizing risk important to cost/benefit.
- The program only needs slight improvement. This recommendation is overkill and would not be cost effective.
- This is another high priority recommendation. Probably does the most in getting sediment out of streams & rivers.

#### **County-Wide Call Center for Stormwater Issues**

- Like the common tracking procedures. Also like the idea of a 3-1-1 type of call center. Only doing one for stormwater doesn't make sense.
- Call center should not be stormwater specific, but also cover all issues that the County faces.
- To enable this, the County would have to perform maintenance of everything, otherwise just a middleman. Our Town hotline is never used; citizens will most likely still call local government to get fast results for their complaints. Is staff going to correspond with local government in regards to these complaints? For our Phase II permit and Neuse Rules permits we are required to report all illicit discharge complaints as well as track them.
- Best recommendations – most comprehensive. Takes burden of calls off stormwater staff. Consistent message; centralized place to gather data for analytical purposes.

- Not needed. If you have a county call center, it should be for all issues – not just for stormwater.
- Needs to be more than just stormwater.
- Mirror Kenn’s comments about the need for this.
- Should address all issues, not just stormwater. If addressed all issues, then would strongly agree.
- “One call does it all”, 3-1-1 system. Use GIS to track calls. Develop website with FAQ’s and good links.
- A piece of a larger need, 3-1-1.
- Expand to 3-1-1 center to handle all calls.
- Also offer assistance to people trying to get help or technical assistance by helping them find their local sources.
- This can help streamline efforts and weed out non-issue or wrong-issue calls, freeing up staff to do other more important things.
- Not the highest priority, but would be useful.
- Recommendation should include an evaluation mechanism for the call center.

### **Risk-Based Approach to Stormwater System Maintenance**

- Why would Wake County be responsible for maintenance on roadways that the NCDOTA/local governments own and are already responsible for?
- Need to maintain what’s on the ground. If there isn’t enough money or staff to do all, then must get best bang for buck by doing risk-based approach.
- Unsure if NCDOT will pay.
- This should be done anyway.
- Not sure I get it. Would like to study this one.
- Use GPS locators on maintenance vehicles to log complaints.
- Essential for future management of stormwater.

- A lot of the stormwater infrastructures are in bad need of repair. Maintenance of these facilities is almost non-existent. Most jurisdictions haven't had the money to do it themselves or ordinances in place to require the property owners to do it. But, nevertheless, it needs to be done.
- I don't understand the exclusive focus on high-risk sites. Yes, these should receive more attention, but it is not like the other sites don't matter - they should still be tracked.

### **Collaboration with Wake County on Phase II Services**

- This is probably the only way to make this happen in the smaller towns.
- Agree this is a good idea for jurisdictions that currently do not hold a NPDES Phase II permit. However, for jurisdictions that do hold a permit, this recommendation seems confusing and it seems complicated to modify permits if the local municipality does not agree with Wake County's permit.
- Sounds like a good idea for economies of scale and consistency. Helps small towns out who have more restrictions on staff.
- Can this be supported through a fee?
- Cost savings and development standardization likely. Must do this!
- Use universal ordinance as model for the jurisdictions even though the universal rules are minimal.
- A common ordinance is very important. This may be one of the most effective recommendations. It provides consistency.
- The offer should be there for Towns needing/wanting collaboration to provide these services.
- This would be extremely beneficial to the smaller jurisdictions that don't have the staff to do a lot of this.
- Should consider multi-year interlocal agreements or ones that automatically renew for the next year unless notice to terminate is provided. This would save time. County would not have to get ILA from 13 local governments and their board approval on an annual basis.
- Would the uniform ordinance be the most that a participating jurisdiction could do? Need to allow some watershed overlays to account for variation in criticality.

### **Environmental Monitoring**

- Contact the N.C. Stream Watch program in DENR to see if there is a potential for cooperation.
- Don't disagree with idea of modeling. Just curious/concerned about how much benefit will come out of it. What will be done with the information?
- Stormwater managers rank this as the lowest priority of the 9 recommendations.
- I think that there is substantial information available now. No need to spend the money.
- IF there were money for everything this would be great. But, it seems that other recommendations are more important.
- Critical areas may be monitored more stringently. Establish a protocol to support voluntary monitoring of water quality. Determine effectiveness of BMPs.
- Helps validate BMPs.
- I think this will lessen the burden and prevent over-lapping. A tool to help us see where efforts need to be made or if efforts are working.
- Include a report to the public, annually.
- County should consider helping volunteer monitoring programs get started, collect and analyze and track viable data.

### **Collaboration on Public Education Programs**

- There are many good State program that might be of help here.
- Is there another plan in case the County Environmental Stewardship division is never established?
- I firmly believe the public needs to be education on stormwater sediment and erosion control issues. With information about it and a better understanding of issues and municipal/county responsibilities, I believe public will be more tolerant of development, more understanding of temporary flooding and less likely to burden government staff with calls/concerns.
- I would think that the education program would be more productive if it focused on the 5 to 10% of people who actually affect stormwater.
- Should be done anyway.

- Should be done immediately.
- Use test audience. Come up with a good slogan first. Use website to run a short public education movie. What would the cost of DVDs be that we could distribute freely at ball games, grocery stores, etc?
- This is a no-brainer.
- Need to identify redundancies with CWEP.
- CWEP already does mass media outreach in Wake County. Please coordinate with CWEP, environmental groups, etc. to build involvement and commitment.

### **Maintenance and Inspection of On-Site Wastewater Systems**

- There needs to be a public education component to this recommendation for home owners about their septic systems and how to take care of them to protect water quality.
- Still involved in task force on this issue – have not completely formulated an opinion on this.
- Use a risk-based program.
- This will enhance water quality of our streams.
- This is important. The cost to implement seems excessive. Consider as a first step a survey that asks, for example, does your system work? Does your neighbors system work? Then go check ones with problems. Maybe a 5-year schedule is OK.
- Wastewater systems already have monitoring measures in place by the state/federal governments. This step just seems redundant and counter-productive. Money could be better spent elsewhere.
- This is already being done at a high level in Wake County.

### **Next Steps**

Wake County and CDM staff will make final changes to the recommendations and produce a draft report to summarize the entire Task Force process. The draft report will be submitted to the Task Force prior to the next meeting.